

New York State Department of Transportation

Yellow Flag NB2228W015

By: Ben Colangelo

Flag Date: March 25, 2022

Superseding Information:

This flag supersedes: YF NB2158W010

Structure Information

BIN: 1065318

Feature Carried: 278I278IX2M23027

Feature Crossed: 6TH AVENUE

Orientation: 8 - NORTHWEST

Region: 11 - NEW YORK CITY

County: KINGS

Political Unit: City of NEW YORK

Approximate Year Built: 1962

Posted Load Matches Inventory : Yes

Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E.

Date: March 25, 2022 10:00:00 AM

Of: NYSDOT Region 11

Signature Information

Signature: Ben Colangelo, P.E. 068498

Date: April 19, 2022

Reviewed By: Robert Kemp

Date: April 19, 2022

Attachments: 6

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 168			
	113 - Steel Stringer	156	ft
	PR831 - Steel Beam End	34	each

Flagged Condition Description

This Yellow Flag No. NB2228W015 is superseding Yellow Flag No. NB2158W010

Location: Span 168 Stringer S3 at Pier 167.

Description: The end of Stringer S3 in Span 168 at Pier 167 exhibits severe section loss at the lower web and bottom flange. The stringer exhibits two corrosion holes for 16"L x 3"H and 1-1/2" (previously 1") diameter in the lower web above the bottom flange (starting at the end of the stringer) with knife edging along the holes with an average of 0.34" remaining thickness measured (RTM) resulting in an overall section loss of 20% for 2" wide surrounding the holes (no change from previous) - (Photo 2). The right stiffener above the bearing exhibits one corrosion hole for 10"H x up to full width at the bottom of the stiffener (no change) - (Photo 3). Also, the first stiffener (counting from Pier 167) at the right face of the stiffener exhibits one corrosion hole for 4"H x full width at the bottom of the stiffener. In addition, the bottom flange of the stringer adjacent to the end side of the bearing plates at Pier 167 exhibits one corrosion hole for 5"L x 2"W at the left side bottom flange and one corrosion hole for 10"L x 2"W at the right side bottom flange with up to 40% section loss surrounding both holes (no change) - (Photo 4).

The stringer rests atop of cantilevered lateral support beam which is framed into the web of Girder G14 with connection angles. The lower web of the support beam exhibits a 2" diameter corrosion hole with up to 60% section loss in the surrounding areas above the bottom flange (no change). The top flange angle of the lateral support beam below Stringer S3 exhibits 1 out of 5 missing bolts. The connection angles between the support beam and the web of Girder G14 are in good condition. (Photo 4)

There has been no significant change since previous inspection.

Notes:

- 1.The adjacent Girder G14 in Span 168 at Pier 167 is in good condition with previously installed reinforcing steel plates installed at the girder web.
- 2.The flagged stringer directly supports the curb and railing posts above at the intersection with the ramp.
- 3.This flagged condition is located above the center lane on 3rd Avenue EB roadway and was accessed using 30ft bucket truck and double left lane closure.

Flag Photographs

Photo Number: 1

Photo Filename: IMG_3476.JPG



Attachment Description: General view of the flagged condition at Stringer S3 in Span 168 at Pier 167. Looking Begin.

Photo Number: 2

Photo Filename: IMG_3454.JPG



Attachment Description: The left face of Stringer S3 in Span 168 at Pier 167. The lower web of the stringer exhibits two corrosion holes with section loss above the bottom flange. Looking Begin Right.

Photo Number: 3

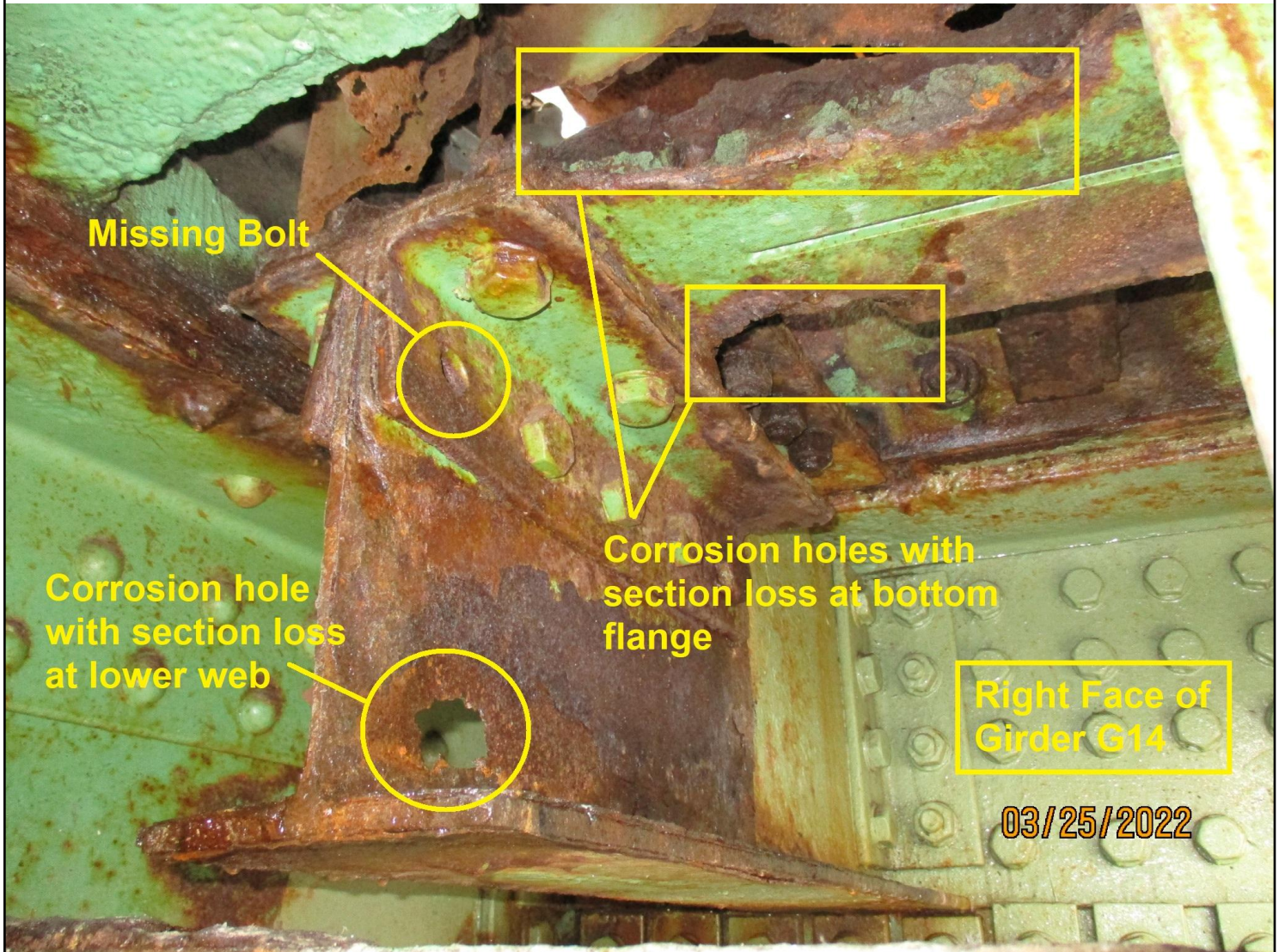
Photo Filename: IMG_3432.JPG



Attachment Description: The right face of Stringer S3 in Span 168 at Pier 167. The right bearing stiffener above the bearing exhibits corrosion hole at the bottom of the stiffener with corrosion hole at lower web of stringer. Looking Begin.

Photo Number: 4

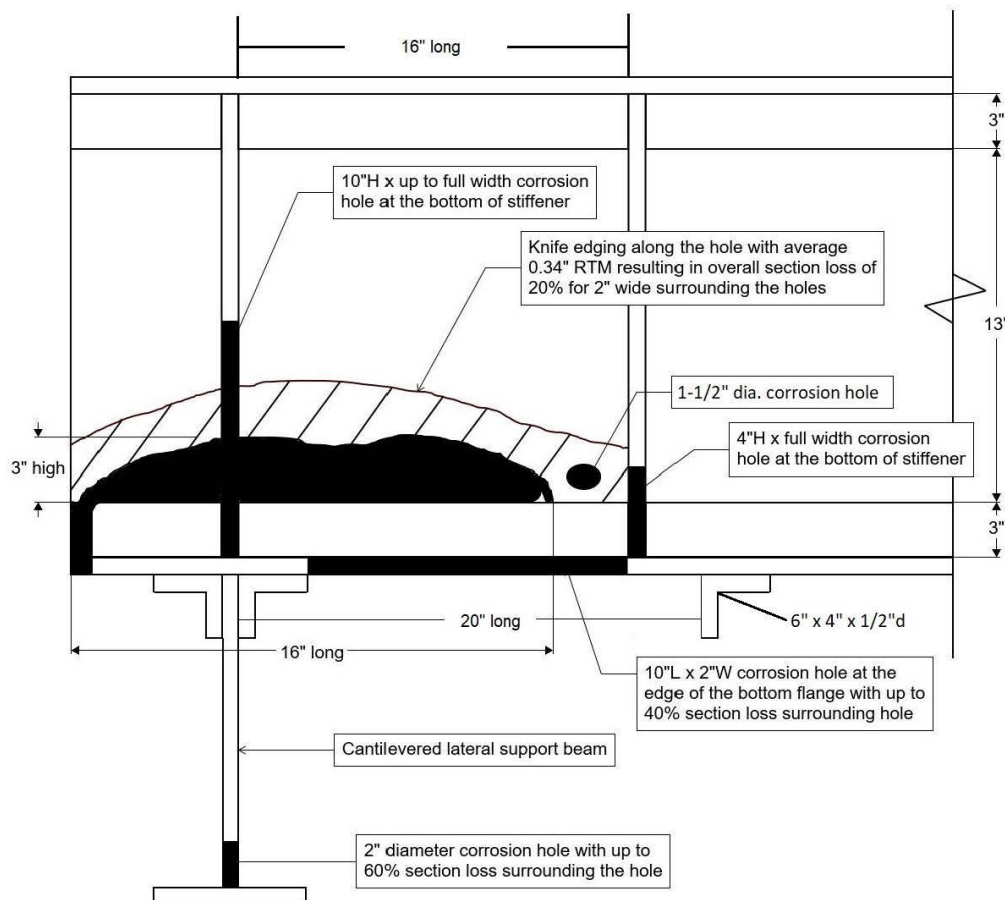
Photo Filename: IMG_3465.JPG



Attachment Description: The cantilever support beam below Stringer S3 in Span 168 at Pier 167. The lower web of the support beam exhibits corrosion hole with section loss. Also, the top flange angle below the stringer exhibits missing bolt. In addition, both sides of the stringer bottom flange exhibit corrosion holes with section loss. Looking Left.

Photo Number: 5

Photo Filename: YFNB22~1.JPG

**Notes:**

- Measured as-built web thickness = 0.43"
- Corrosion hole for 5"L x 2"W at the edge of the left side bottom flange not shown in sketch.
- The stringer rests atop cantilevered lateral support beam which is framed into the web of Girder G14 with connection angles which is in good condition.
- Missing 1 out of 5 bolts at the top flange angle of the lateral support beam below stringer.
- The stringer directly supports the curb and railing posts above at the intersection with ramp.

Right Face of Stringer S3 Sketch in Span 168 at Pier 167
N.T.S

Attachment Description: SN 168 S3 at Pier 167 Sketch

Photo Number: 6

Photo Filename: SN168_S6_Framing Plan - 2022-edit.jpg

**LEGEND:**

E - Expansion Bearing Element PR311

F - Fixed Connection

G - Girder Element 107

S - Stringer Element 113

- End of partial length cover plate. Category E' requires 100% Hands on Inspection.

**YELLOW FLAG
LOCATION
No. NB2228W015**

Attachment Description: SN 168 S3 at Pier 167 Framing Plan